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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,035	10/01/2004	Akira Okazaki	4924-0106PUS1	4645

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EXAMINER

PENG, KUO LIANG

ART UNIT PAPER NUMBER

1712

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/510,035

Applicant(s)

OKAZAKI ET AL.

Examiner

Kuo-Liang Peng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/1/06 IDS.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) 1-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/1/04 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>See Other</u> . | 6) <input type="checkbox"/> Other: <u>3/1/06, 12/30/04, 10/1/04</u> . |

DETAILED ACTION

1. The Applicants' preliminary amendment filed on October 1, 2004 is acknowledged. Now, Claims 1-17 are pending.

Specification

2. It appears that the ^1H NMR spectra of the original Figure 1 and Figure 2 are the same.

3. Applicants' preliminary amendment introduces a replacement sheet for Figure 1. Applicants allege that the support can be found in the original specification. However, Examiner is not able to find the basis for the new Figure 1 because at best, the specification merely shows **some** of the proton peak positions in the corresponding ^1H NMR spectrum. There is no detailed description such as the **specific shapes** and the **integrations** of the peaks, which can only be illustrated by a figure. Therefore, the replacement sheet of the new Figure 1 is considered **new matter**.

Claim Objections

4. Claims 1-17 are objected to because of the following informalities:

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In Claim 1 (line 3), should the period after the word “molecule” be removed?

In Claim 1 (page 52, 1st line below the structure of formula (4)), Claim 4 (page 53, 1st line below the structure of formula (4A)), Claim 6 (page 55, 1st line below the structure of formula (1A)), should “[In” be -- in --?

In Claim 1 (page 53, line 3), should “P” be -- p --?

In Claim 1 (last line), should “-COOH]” be -- -COOH. --?

In Claim 4 (line 2), should “(meth)acyloyloxy” be -- (meth)acryloyloxy --?

In Claim 4 (last line), should “50]” be -- 50. --?

In Claim 6 (page 55, 2nd line from bottom), should “10)]” be -- 10); --?

In Claim 6 (page 55, 1st line from bottom and page 56, 1st line below the structure of formula (4A')) and Claim 13 (page 58, 1st line below the structure of formula (2)), should “[In” be -- in --?

In Claim 6 (page 56, line 6), should “50.]” be -- 50; --?

In Claim 6 (last line), should “anhydride]” be -- anhydride. --?

Claims 8-12 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n).

Claims 11 and 17 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n).

In Claim 13 (page 58, 9th line below formulae (2) and (3)), should “groups.]” be -- groups; --?

In Claim 13 (page 58, 10th line below formulae (2) and (3)), should “[In” be -- in --?

In Claim 13 (page 58, 4th line from bottom), should “50]” be -- 50 --?

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 1 (page 52, 3rd line below the structure of formula (4)), Claim 4 (page 53, 2nd to 3rd lines from bottom), it is not clear as to what “a group derived from the residue” refers to.

In Claim 1 (page 52, 6th line from bottom) and Claim 13 (page 58, 7th line below formulae (2) and (3)), it is not clear as to what “the hydrocarbon group” refers to because there are more than one “hydrocarbon group” in the instant claim.

In Claim 1 (page 52, 7th line from bottom) and Claim 13 (page 58, 6th line below formulae (2) and (3)), it is not clear as to what “another group” refers to.

In Claim 4 (page 54, lines 4-6), Claim 6 (page 55, 5th to 7th lines), the three formulae of Y are not supported by Claim 1 where the substituents carrying the polymerizable unsaturated group are linked to the cyclohexane moiety via C1-C10 hydrocarbon groups (i.e., do not contain ester linkages).

In Claim 7 (line 3), “comprises” causes confusion because the trimethylol propane is a molecule itself.

In Claim 11 (lines 2-4), the instant claim recites “the other curable resin”, yet this “other” curable resin contains the compound of formula (2A).

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7. Claim 1 would be allowable if rewritten or amended to overcome the claim objection and the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Harano (US 5 242 955) teaches a polyether compound similar to that of the present invention. However, it does not teach or fairly suggest the polyether compound possessing end groups such as a polybasic acid anhydride, etc. set forth in the claimed invention.

8. Claims 2-17 would be allowable if rewritten to overcome the claim objection and/or the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The patentability of the instant claims is described above.

9. The "X" references cited in the international search report are not relied upon because of the following reason:

EP 540 027 discloses the **copolymerization** of an **vinyl** containing epoxy compound with an **anhydride** as illustrated in Examples. However, it does not teach or fairly suggest the **homopolymerization** of an **acryloxy** containing epoxy

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compound and **end-capped** with the specific compounds set forth in the claimed invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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klp

August 16, 2006

A handwritten signature in black ink, appearing to read 'Kuo-Liang Peng', written in a cursive style.

Kuo-Liang Peng
Primary Examiner
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